BTEC Assignment Brief

Qualification	Pearson BTEC International Level 3 Certificate in Information Technology Pearson BTEC International Level 3 Subsidiary Diploma in Information Technology Pearson BTEC International Level 3 Foundation Diploma in Information Technology Pearson BTEC International Level 3 Diploma in Information Technology Pearson BTEC International Level 3 National Extended Diploma in Information Technology
Unit number and title	**Unit 10: Big Data and Business Analytics**
Learning aim(s) (For NQF only)	**C:** Carry out analysis of statistical data to meet the needs of an organisation
Assignment title	
Assessor	
Issue date	
Hand in deadline	

Vocational Scenario or Context	You have recently started an internship at an educational charity. The director of the charity is interested in how big data and data analytics might be used by the organisation to improve the way they target their efforts so that the work they do can be as effective as possible.

Task 1	The directors are looking at developing educational resources for teachers and students to use, particularly in countries where schools may be typically be under resourced and where students may not progress as effectively. The director needs some information on access to IT infrastructure, and available bandwidth in different countries. The development team will then use this information to make design decisions, as well as decisions on how to deliver the content to schools and students. You may wish to refer to the data on school progression rates from the last assignment which can be found here: https://en.unesco.org/gem-report/node/6 Global and Regional ICT data can be found here: https://www.itu.int/en/ITU-D/Statistics/Pages/stat/

	default.aspx You will need to: • Prepare the raw data by extracting only data for countries that have below average school completion or progress rates, removing those countries that have high-rates of education completion and progress. • Accurately analyse the data by applying routine and non-routine statistical, probability and mathematical operations. • Create reports (one detailed version for the directors and one summary version for the develpors) in which you evaluate the outcomes of your analysis and produce accurate, valid and relevant judgements from the analysis of the dataset. Your reports should: • Formulate a clear, specific, well-defined question to identify what you want to know. • Select methods to generate valid, accurate and relevant information. • Include appropriate and accurate presentation of data, calculations of central measures, dispersion and probability functions, comparison of data sets and regression. Your work should be easily understood by a third party with a mathematical background and use of mathematical terminology and application of relevant units correctly
Checklist of evidence required	Evidence of data preparation and cleaning (screenshot) Report for Directors Report for Developers

Criteria covered by this task:	
Unit/Criteria reference	To achieve the criteria you must show that you are able to:
C.D3	Present concise, valid and relevant conclusions and recommendations from an accurate evaluation of the effectively cleansed and formatted dataset that are fit for different audiences and purpose to meet the needs of an organisation.
C.M4	Prepare effectively an appropriate raw dataset to meet the needs of an organisation.
C.M5	Analyse accurately, using software, the dataset by applying routine and nonroutine statistical, probability and mathematical operations.
C.M6	Present concise and valid conclusions and recommendations from the accurate analysis of the dataset that are fit for different audiences and purpose to meet the needs of an organisation.
C.P4	Prepare an appropriate raw dataset to meet the needs of an organisation.
C.P5	Analyse, using software, the dataset by applying routine statistical, probability and mathematical operations.

C.P6	Present straightforward conclusions and recommendations from the analysis of a dataset to meet the needs of an organisation.

Sources of information to support you with this Assignment	Marr B. Big Data: Using Smart Big Data, Analytics and Metrics to Make Better Decisions and Improve Performance. John Wiley & Sons, Ltd. 2015. 978-1118965832 Cody, I.D. Data Analytics: Practical Data Analysis and Statistical Guide to Transform and Evolve Any Business Create Space Independent Publishing Platform. 2016 978-1536875379
Other assessment materials attached to this Assignment Brief	*e.g. work sheets, risk assessments, case study*